

We claim:

1. A high pressure flexible conduit comprising:

(a) a conduit liner extruded from a flexible linear material; and

(b) a seamless fibrous sleeve able to withstand high pressure contents braided or woven in a continuous manner fitted around the conduit whereby, the sleeve has freedom of motion independent from the liner and the sleeve absorbs the tensile forces in the conduit.

2. A high pressure flexible conduit according to claim 1 wherein the conduit is extruded from a linear low density polyethylene material.

3. A high pressure flexible conduit according to claim 1 wherein the sleeve is braided from a gel spun ultra high molecular weight polyethylene whereby high axial and hoop strength are achieved.

4. A high pressure flexible conduit comprising:

(a) a conduit extruded from a flexible linear material;

(b) a seamless fibrous sleeve able to withstand high pressure contents braided or woven in a continuous manner fitted around the conduit whereby, the sleeve has freedom of motion independent from the liner and the sleeve absorbs the tensile forces in the conduit; and

(c) a protective layer encompassing the outer surface of the sleeve whereby, the sleeve is protected from deterioration due to exterior influences and wear and tear as it absorbs the tensile forces in the conduit.

5. A high pressure flexible conduit according to claim 4 wherein the conduit is extruded from a linear low density polyethylene material.
6. A high pressure flexible conduit according to claim 4 wherein the sleeve is braided from a gel spun ultra high molecular weight polyethylene whereby, optimum axial and hoop strength are achieved.
7. A high pressure flexible conduit according to claim 4 wherein the protective layer is a coating or an overweave.
8. A protective layer according to claim 7 wherein the coating is polyurea.
9. A protective layer according to claim 7 wherein the overweave is formed of aramid.
10. 10. A high pressure flexible conduit according to claim 7 comprising a method of adhering the protective layer to the sleeve surface whereby the protective layer is adhered to the sleeve surface by way of a process that oxidizes the surface of the sleeve to create polar bonding sites and increase the surface energy so that the surface of the sleeve bonds with an adhesive substance that fuses the protective layer to the outer surface of the sleeve.
- 15 11. A high pressure flexible conduit comprising:
  - (a) a conduit extruded from a flexible linear material;
  - (b) a seamless fibrous sleeve able to withstand high pressure contents braided or woven in a continuous manner fitted around the conduit whereby, the sleeve has freedom of motion independent from the liner and the sleeve absorbs the tensile forces in the conduit;
  - (c) a protective layer encompassing the outer surface of the sleeve whereby, the sleeve is protected from deterioration due to exterior influences and wear and tear as it absorbs the tensile forces in the conduit; and

(d) an end fixture engaged to the sleeve.

12. A high pressure flexible conduit according to claim 10 wherein the conduit is extruded from a linear low density polyethylene material.

5 13. A high pressure flexible conduit according to claim 10 wherein the sleeve is braided from a gel spun ultra high molecular weight polyethylene whereby, optimum axial and hoop strength are achieved.

14. A high pressure flexible conduit according to claim 10 wherein the protective layer is a coating or an overweave.

15. A protective layer according to claim 13 wherein the coating is polyurea.

10 16. A protective layer according to claim 13 wherein the overweave is formed of Kevlar™.

15 17. A high pressure flexible conduit according to claim 13 comprising a method of adhering the protective layer to the sleeve surface whereby, the protective layer is adhered to the sleeve surface by way of a process that oxidizes the surface of the sleeve to create polar bonding sites and increase the surface energy so that the surface of the sleeve bonds with an adhesive substance that fuses the protective layer to the outer surface of the sleeve.

18. A high pressure flexible conduit according to claim 10 wherein the end fixture is bonded to the sleeve by way of a process which oxidizes the surface of the sleeve to create polar bonding sites and increases the surface energy so that the sleeve surface can bond with an adhesive substance that fuses the end fixture to the sleeve surface.